

Notice of Allowability

Application No.

10/027,175

Examiner

Matthew O Savage

Applicant(s)

SCHEPIS, ANTHONY

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 8-2-04.
2. ☒ The allowed claim(s) is/are 6-13 renumbered 1-8, respectively.
3. ☒ The drawings filed on see the examiner's comment are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Matthew O Savage
Primary Examiner
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FIGS. 1-3 of the drawings filed on 12-20-01 are acceptable. The proposed amendments to FIG. 4 filed on 7-15-04 and to FIG. 5 filed on 9-17-03 have been approved. The proposed amendments to FIG. 4 filed on 9-17-3 have not been approved. All of the drawing objections set forth in the previous office actions mailed on 6-24-03 and 1-15-04 have been obviated by the approved proposed amendments. Accordingly, the drawings will be acceptable upon receipt of formal versions of FIGS. 4 and 5 which must be submitted no later than the due date of the issue fee..

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John P. McGonagle on 10-8-04.

Claim 6 (currently amended) A high shear rotating disc filter assembly in a filtering system for filtering a slurry comprised of liquid and very small particles, said filtering system having at least a feed tank with a slurry input means, a slurry output means, and a slurry recycle input means, a receiver tank, and a vacuum pump, comprising:

plurality of rotating discs constructed of a porous material, each said disc having a hollow interior, each said disk being mounted on an elongated cylindrical shaft, wherein each disc has a round outer perimeter, a central radial opening, a first surface

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and an opposite second surface, said outer perimeter defining a disc radial plane, said surfaces, perimeter and central opening defining a disc interior, each said disc having a radial plane perpendicular to a longitudinal axis of the shaft, each said disc interior opening onto the central opening, wherein each said disc has a hollow, disc-shaped hub insert with an outer perimeter fitted to and within each disc central radial opening, said hub perimeter having apertures formed therein establishing an opening between the disc interior and a hub interior, each hub having a central radial opening adapted to be fitted onto and about a shaft cylindrical wall, wherein each said hub insert has central neck formed on each surface about the central opening, said necks adapted to abut and fit against an adjacent hub neck;

a liquid-tight vessel enclosing said discs, said vessel being connected to said feed tank slurry output means for receiving said slurry, said feed tank having an output means connected to said feed tank slurry recycle input means, wherein said vessel has a top, a bottom, and a side wall extending vertically upward from the bottom to the top, said bottom, top and interconnecting side wall defining a vessel interior, ~~said vessel top and bottom defining~~ a vessel vertical axis extending through a center of said vessel interior, wherein said slurry is pumped from the feed tank to a vessel inlet located at the vessel bottom, said slurry being fed continuously so as to affect an overflow at the top of the vessel, said vessel top having a recycle outlet which is piped back to the feed tank top slurry recycle input means, and wherein said vessel inlet and said recycle outlet are coaxially aligned with said vessel vertical axis;

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said shaft having a hollow interior, said shaft having a first end and a second end, said ends defining an elongated, longitudinal shaft axis, said second end being connected to said vacuum pump and said receiver tank, said first end being connected to a rotational drive means, said shaft having a plurality of elongated slots opening into said shaft hollow interior and into said disc interiors, wherein, the shaft first and second ends protrude through a shaft side wall, wherein said portion of said shaft holding said discs is positioned within the vessel so that the shaft longitudinal axis is perpendicular to the vessel vertical axis, wherein said shaft is further defined by a generally cylindrical wall with a plurality of elongated slots formed therein, each said slot opening into said shaft hollow interior, each said elongated slot having a longitudinal axis parallel with the longitudinal axis of the shaft;

wherein, said plurality of discs with hub inserts are stacked against each other onto said shaft, each hub neck abutting and fitting against an adjacent hub neck;

wherein, said vacuum pump is adapted to draw the slurry from the vessel bottom through said plurality of discs and through said shaft.

On line 10 of page 9 of the specification, -- As shown in FIG. 2, the vessel inlet 31 and recycle outlet 33 are coaxially aligned with a vessel vertical axis 100 that extends through a center of the vessel interior 37. -- has been inserted before "The".

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figure 2 must be amended to include the vessel vertical axis

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100 extending through the center of the vessel interior. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach or suggest the limitations of the vessel inlet and the recycle outlet being coaxially aligned with a vessel vertical axis extending through a center of the vessel interior as recited in instant claim 6.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Savage
Matthew O Savage
Primary Examiner
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